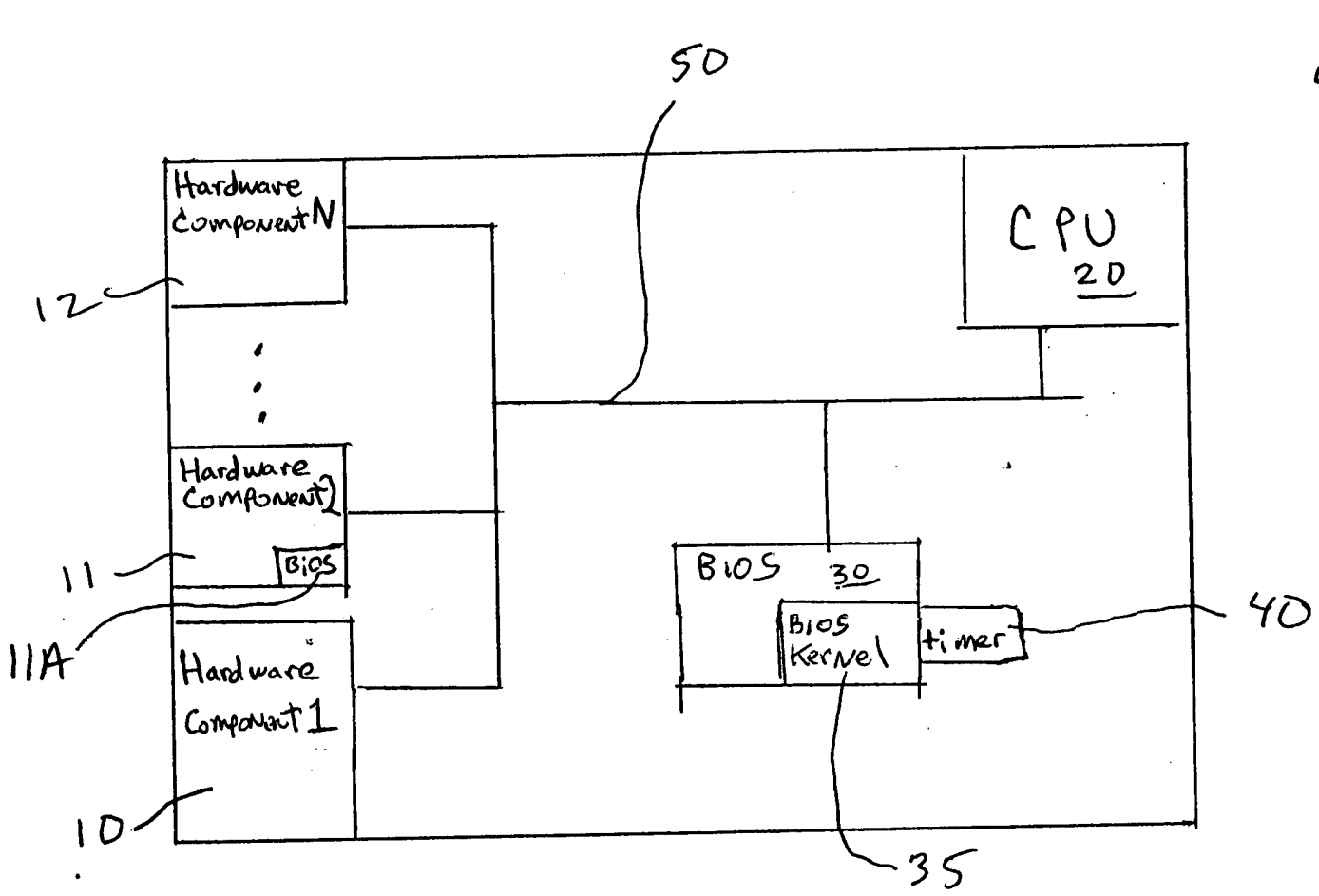

100
50
Hardware Component N
12
CPU
20
Hardware Component 2
11
Bios
11A
Hardware Component 1
10
BIOS 30
BIOS Kernel
timer
40
35

Figure 1

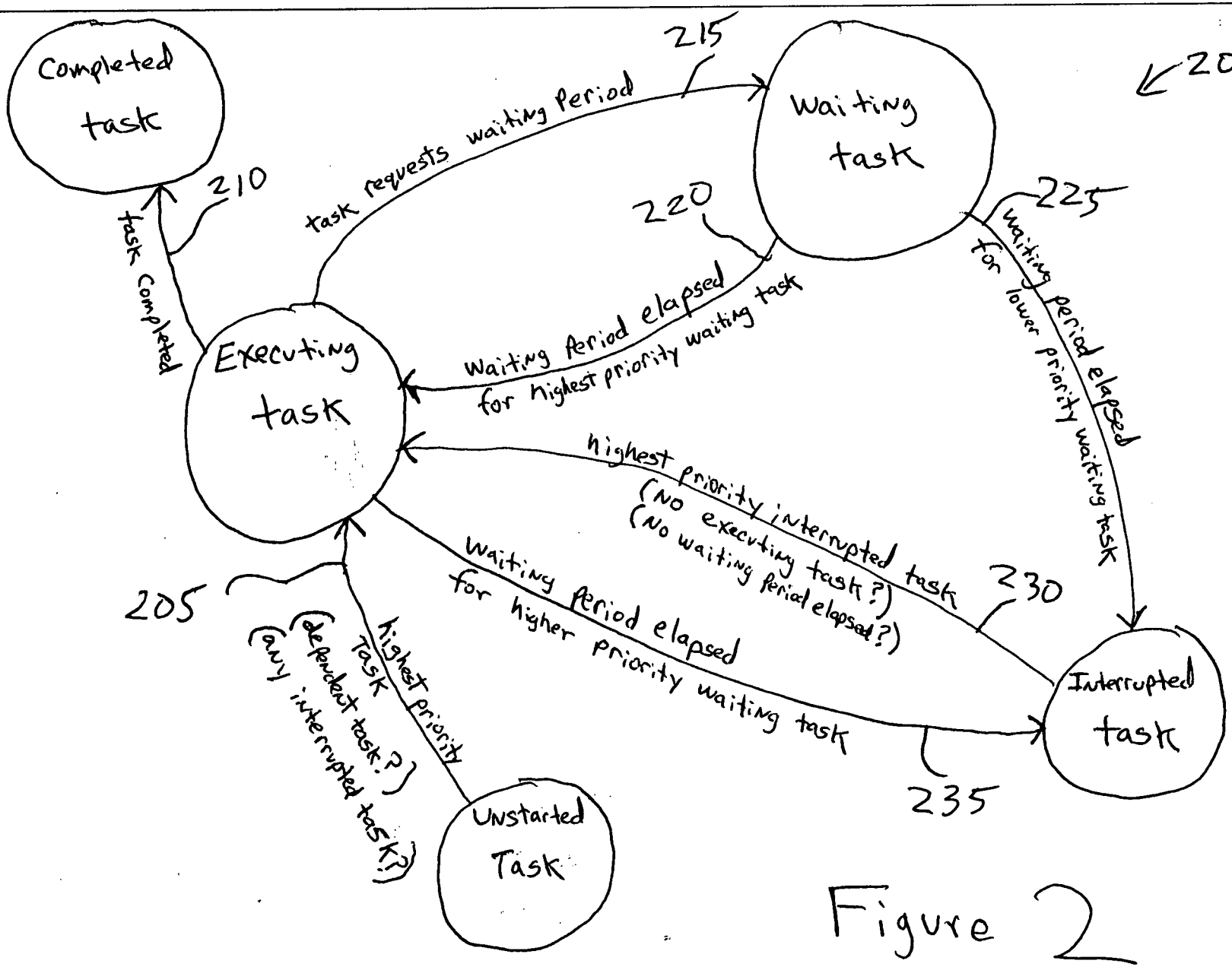

Completed task
Waiting task
Executing task
Interrupted task
Unstarted Task
200
215
task requests waiting period
210
task Completed
220
Waiting period elapsed for highest priority waiting task
225
waiting period elapsed for lower priority waiting task
highest priority interrupted task
(No executing task?)
(No waiting period elapsed?)
230
205
highest priority Task
(dependent task?)
(any interrupted task?)
Waiting period elapsed for higher priority waiting task
235

Figure 2

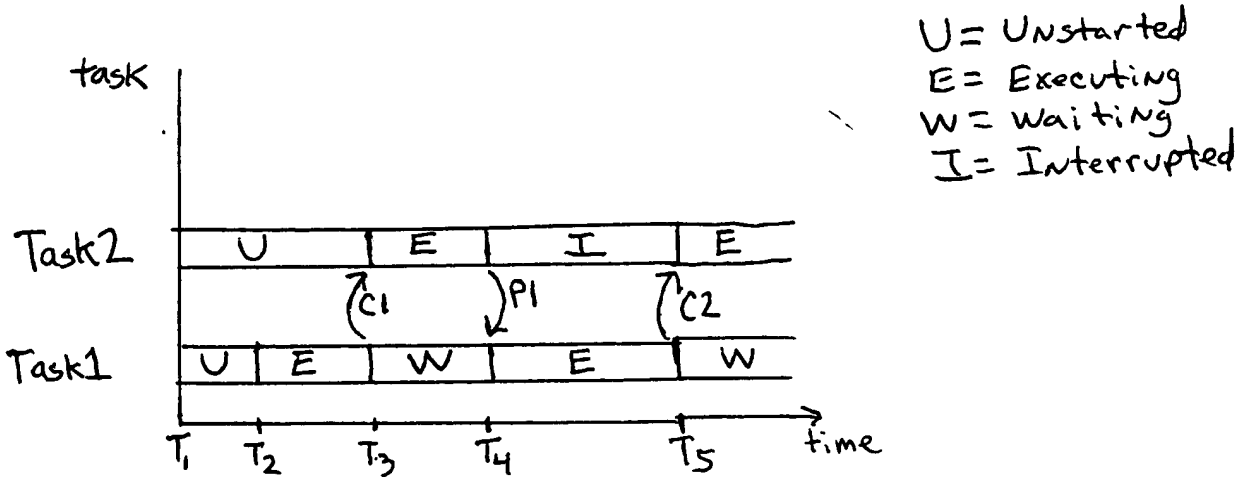


Figure 3A

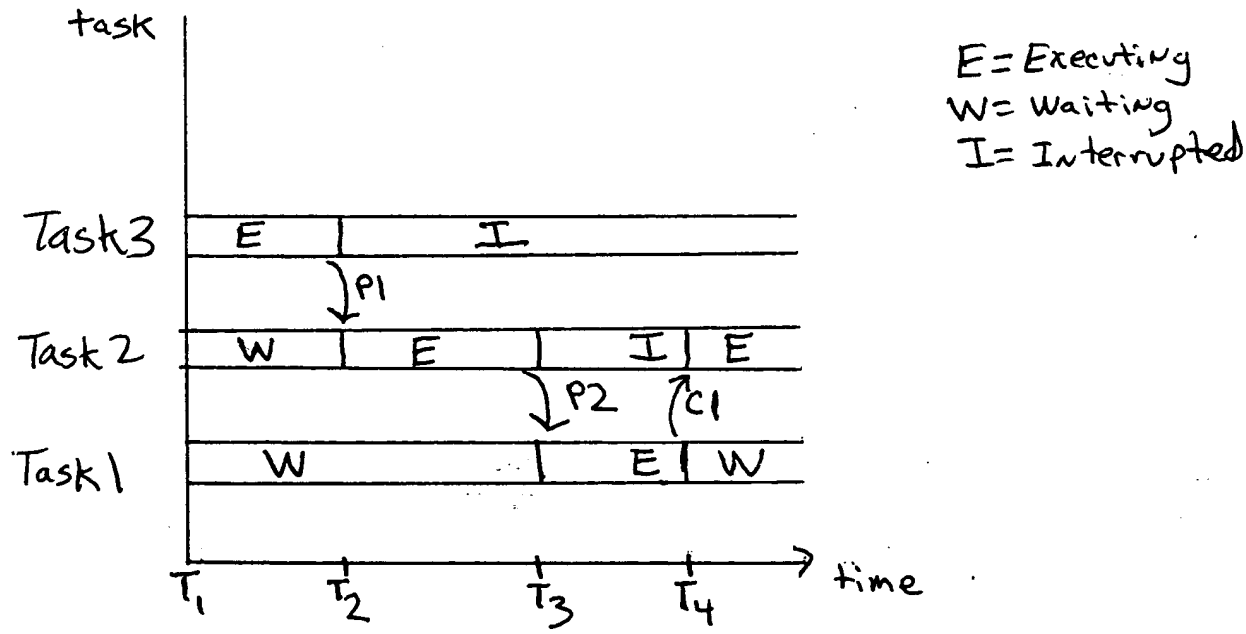
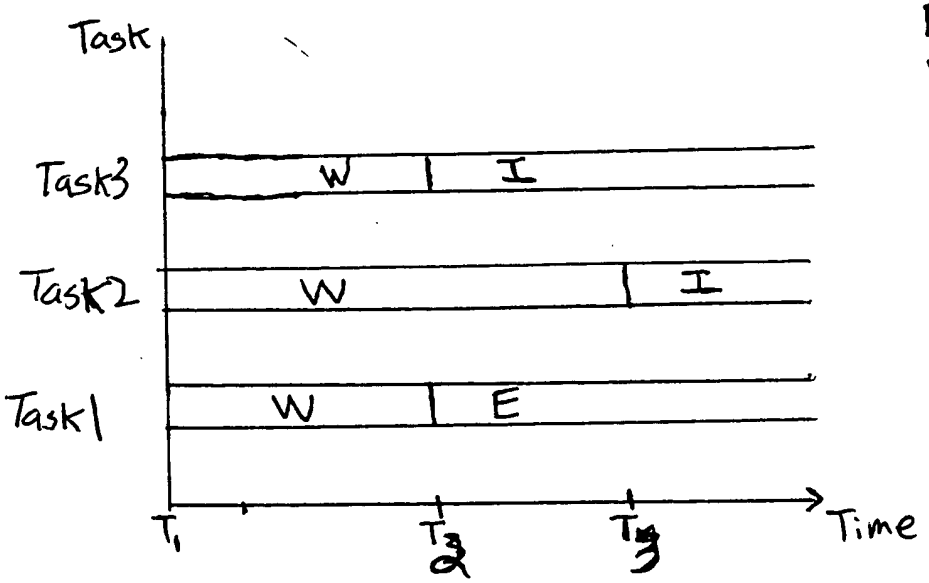
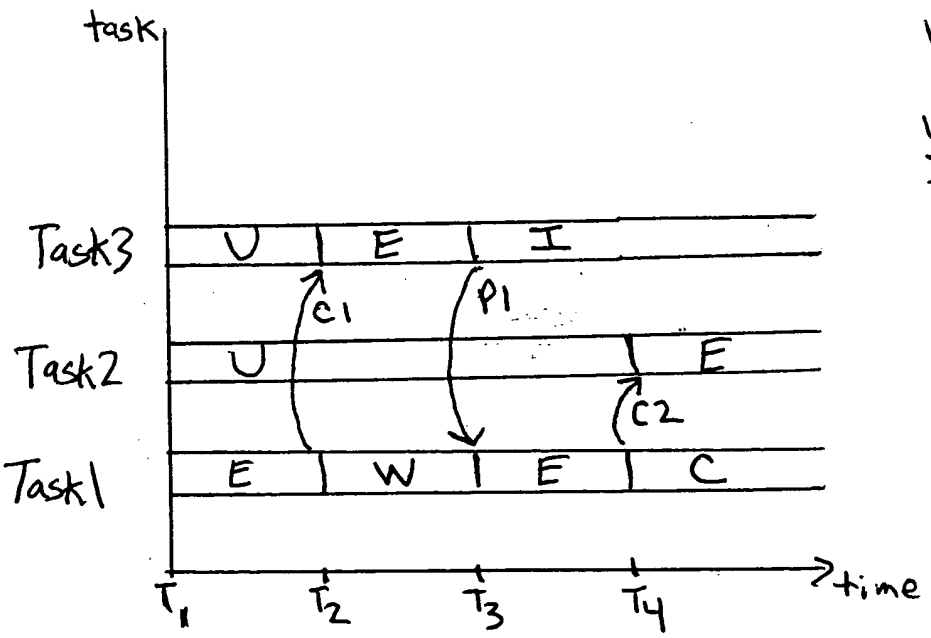


Figure 3B



E = Executing
W = Waiting
I = Interrupted

Figure 3C

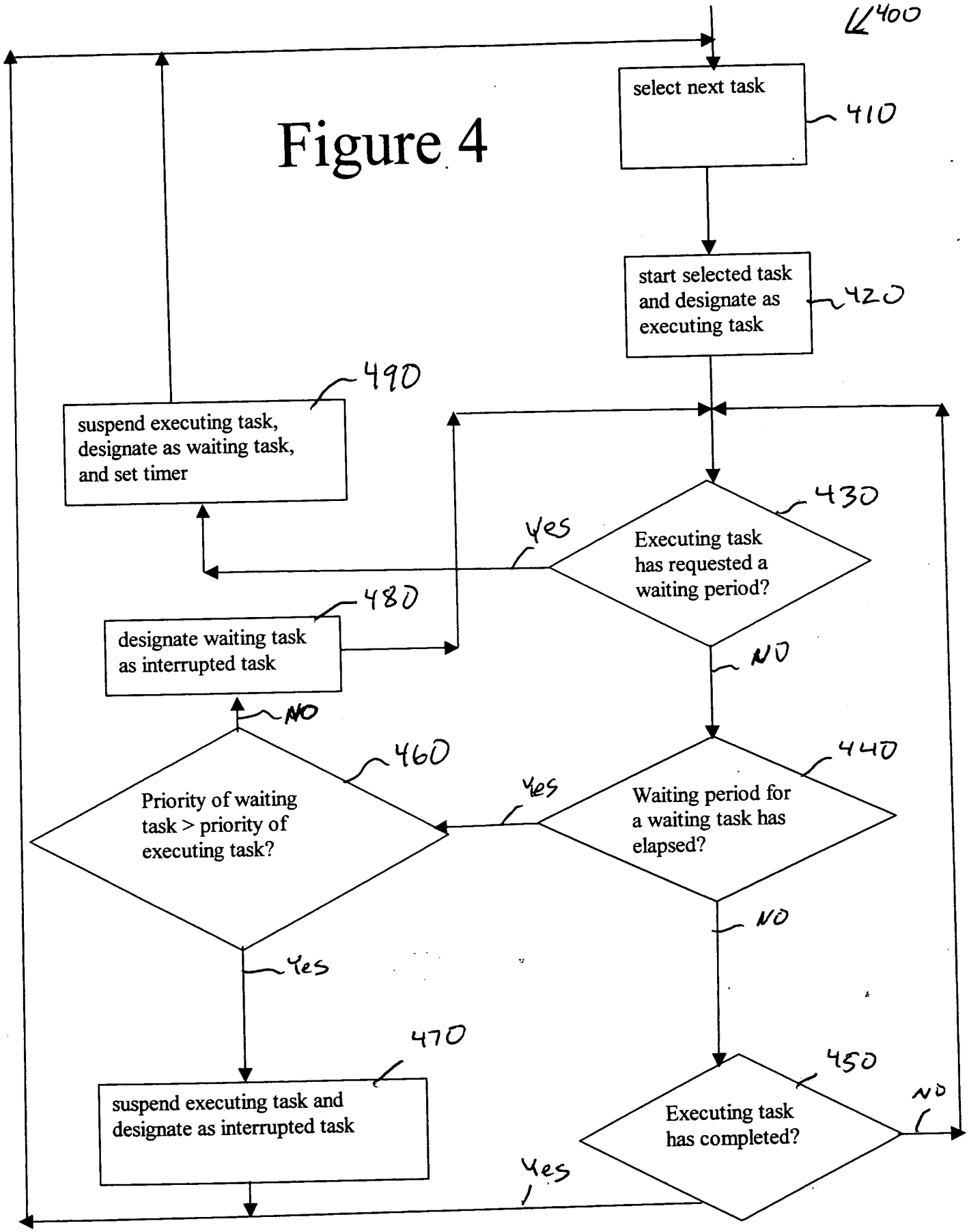


U = Unstarted
E = Executing
W = Waiting
I = Interrupted
C = Completed

Task 2 starts only if Task 1 has completed

Figure 3D

Figure 4


400
select next task
410
start selected task and designate as executing task
420
suspend executing task, designate as waiting task, and set timer
490
Executing task has requested a waiting period?
430
Yes
designate waiting task as interrupted task
480
NO
NO
Priority of waiting task > priority of executing task?
460
Yes
Waiting period for a waiting task has elapsed?
440
Yes
NO
suspend executing task and designate as interrupted task
470
Executing task has completed?
450
NO
Yes